Pioneer *sound.vision.soul*

Service Manual

GM-5000T/X1R/EW

ORDER NO.
CRT3238

BRIDGEABLE POWER AMPLIFIER

GM-5000T X1R/EW
GM-5000T X1R/UC
GM-5000T X1R/ES

For details, refer to "Important symbols for good services".

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SAFETY INFORMATION

UC model

CAUTION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer.
Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty.
If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.
Health & Safety Code Section 25249.6 - Proposition 65

● Service Precaution

You should conform to the regulations governing the product (safety, radio and noise, and other regulations), and should keep the safety during servicing by following the safety instructions described in this manual.

[Important symbols for good services]
In this manual, the symbols shown-below indicate that adjustments, settings or cleaning should be made securely.
When you find the procedures bearing any of the symbols, be sure to fulfill them:

1. Product safety

You should conform to the regulations governing the product (safety, radio and noise, and other regulations), and should keep the safety during servicing by following the safety instructions described in this manual.

2. Adjustments

To keep the original performances of the product, optimum adjustments or specification confirmation is indispensable. In accordance with the procedures or instructions described in this manual, adjustments should be performed.

3. Cleaning

For optical pickups, tape-deck heads, lenses and mirrors used in projection monitors, and other parts requiring cleaning, proper cleaning should be performed to restore their performances.

4. Shipping mode and shipping screws

To protect the product from damages or failures that may be caused during transit, the shipping mode should be set or the shipping screws should be installed before shipping out in accordance with this manual, if necessary.

5. Lubricants, glues, and replacement parts

Appropriately applying grease or glue can maintain the product performances. But improper lubrication or applying glue may lead to failures or troubles in the product. By following the instructions in this manual, be sure to apply the prescribed grease or glue to proper portions by the appropriate amount.For replacement parts or tools, the prescribed ones should be used.

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1. SPECIFICATIONS

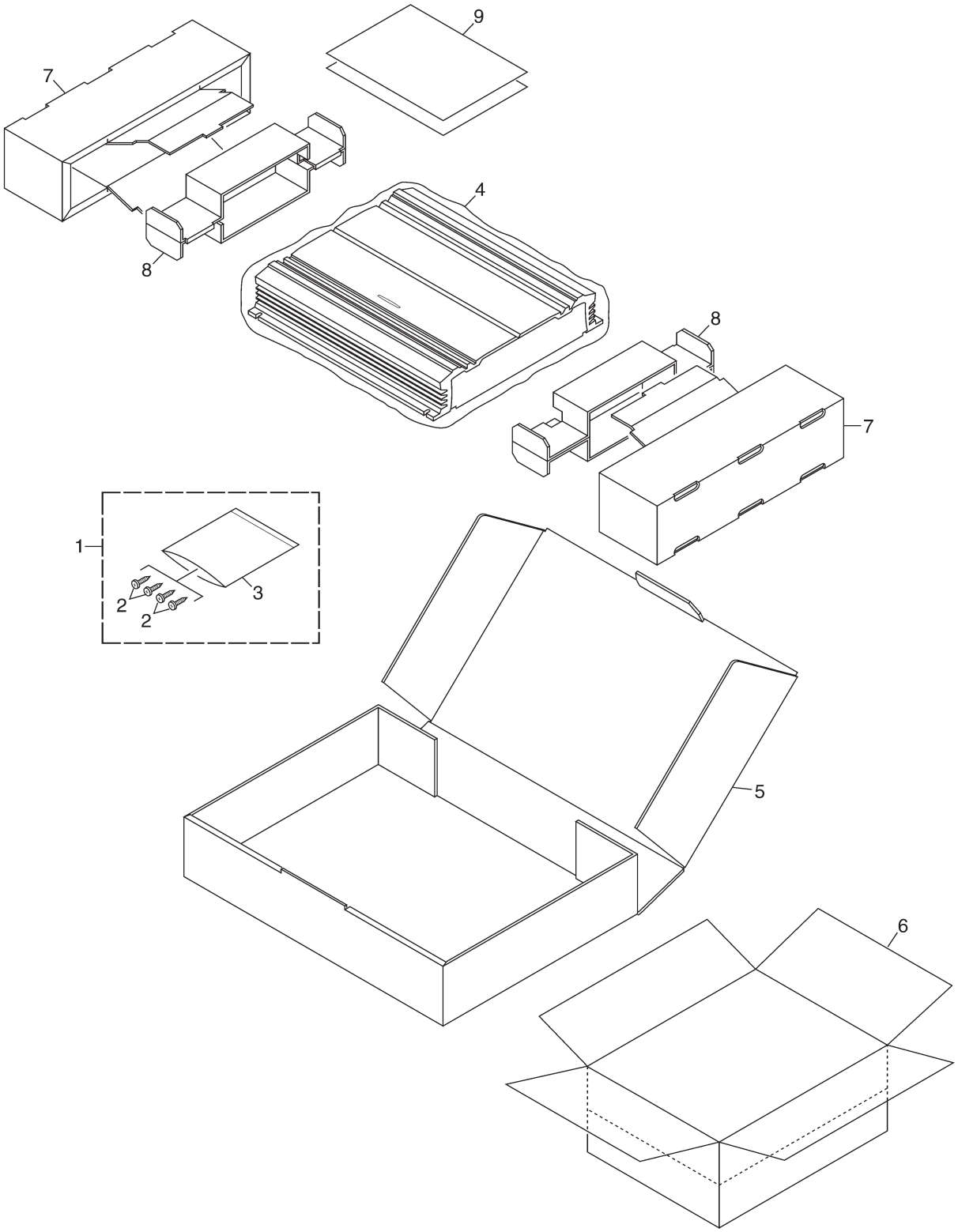
Power source	14.4 V DC (10.8 — 15.1 V allowable)
Grounding system	Negative type
Backup current	5.1 mA or less
Current consumption	25.0 A (at continuous power, 4 Ω)
Average current drawn*	9.6 A (4 Ω for two channels)
	17.3 A (4 Ω for one channel)
Fuse	25 A × 2
Dimensions	300 (W) × 61 (H) × 324 (D) mm
Weight	5.5 kg (Leads for wiring not included)
Maximum power output	250 W × 2 / 760 W × 1
Continuous power output	175 W × 2 / 530 W × 1 (DIN45324, +B=14.4 V)
Load impedance	4 Ω (2 — 8 Ω allowable)
	(Bridge connection: 4 — 8 Ω allowable)
Frequency response	10 — 50,000 Hz (+0 dB, –1 dB)
Signal-to-noise ratio	100 dB (IEC-A network)
Distortion	0.008 % (10 W, 1 kHz)
Separation	65 dB (1 kHz)
Low pass filter	Cut off frequency: 80 Hz
	Cut off slope: –12 dB/oct
Maximum input level/impedance	RCA: 6.5 V/22 kΩ (0.2 — 6.5 V)

Note:
- Specifications and the design are subject to possible modification without notice due to improvements.

***Average current drawn**
- The average current drawn is nearly the maximum current drawn by this unit when an audio signal is input. Use this value when working out total current drawn by multiple power amplifiers.

2. EXPLODED VIEWS AND PARTS LIST

2.1 PACKING



NOTE:

- Parts marked by "*" are generally unavailable because they are not in our Master Spare Parts List.
- Screws adjacent to ∇ mark on the product are used for disassembly.
- For the applying amount of lubricants or glue, follow the instructions in this manual.
  (In the case of no amount instructions, apply as you think it appropriate.)

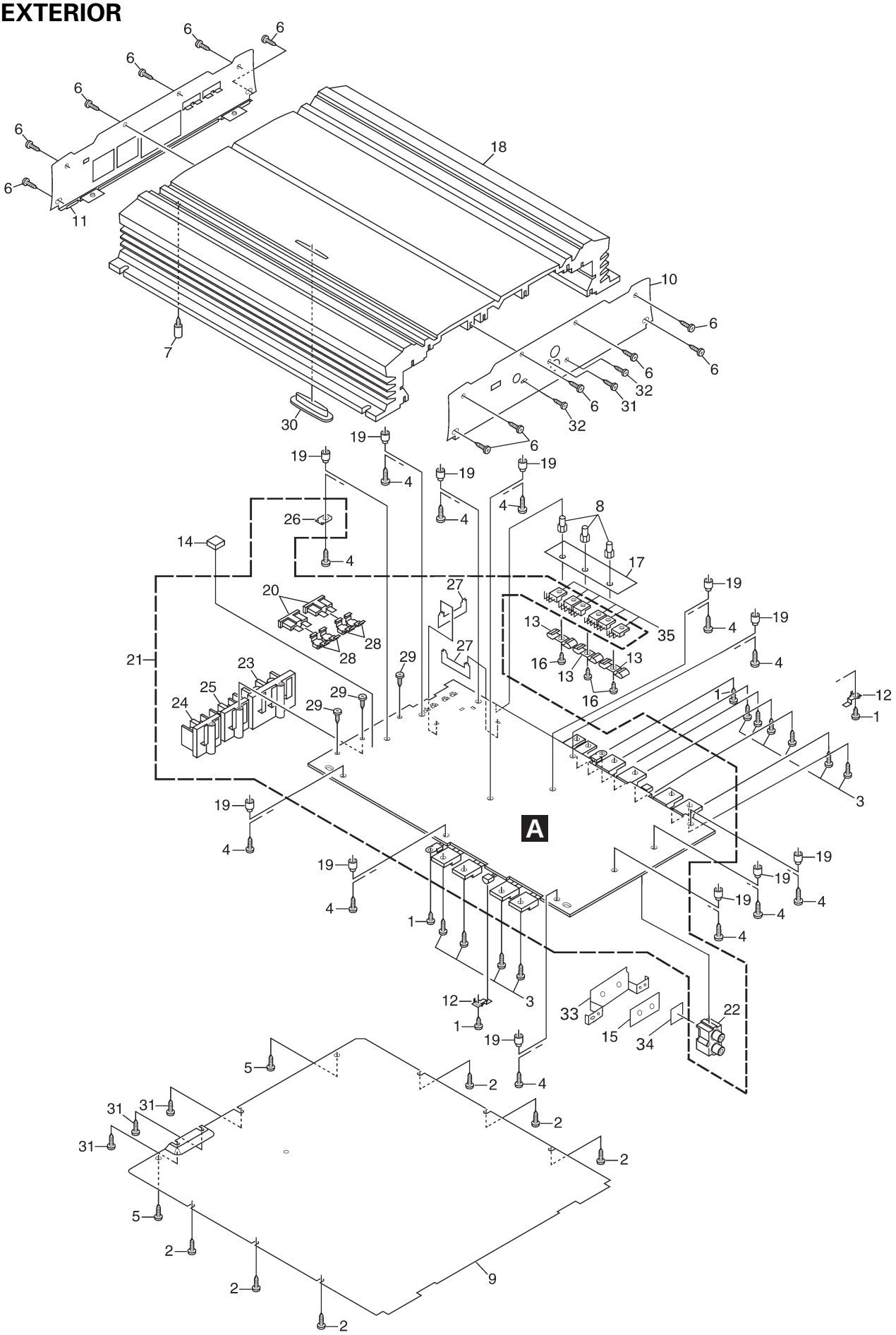
● PACKING SECTION PARTS LIST

Mark	No.	Description	Part No. GM-5000T/X1R/EW	Part No. GM-5000T/X1R/UC	Part No. GM-5000T/X1R/ES
	1	Screw Assy	HEA0058	HEA0058	HEA0058
	2	Screw	BYC40P180FZK	BYC40P180FZK	BYC40P180FZK
	3	Polyethylene Bag	HEG0011	HEG0011	HEG0011
	4	Polyethylene Bag	HEG0022	HEG0022	HEG0022
	5	Carton	HHG0433	HHG0433	HHG0433
	6	Contain Box	HHL0433	HHL0433	HHL0433
	7	Protector	HHP0249	HHP0249	HHP0249
	8	Protector	HHP0251	HHP0251	HHP0251
	9-1	Owner's Manual	HRD0260	HRD0259	HRD0261
	9-2	Owner's Manual	Not used	Not used	HRD0262
*	9-3	Warranty Card	HRY1157	ARY1048	Not used

● Owner's Manual

Part No.	Language
HRD0259	English, French
HRD0260	English, Spanish, German, French, Italian, Dutch
HRD0261	English, Spanish
HRD0262	Arabic, Portuguese(B)

2.2 EXTERIOR



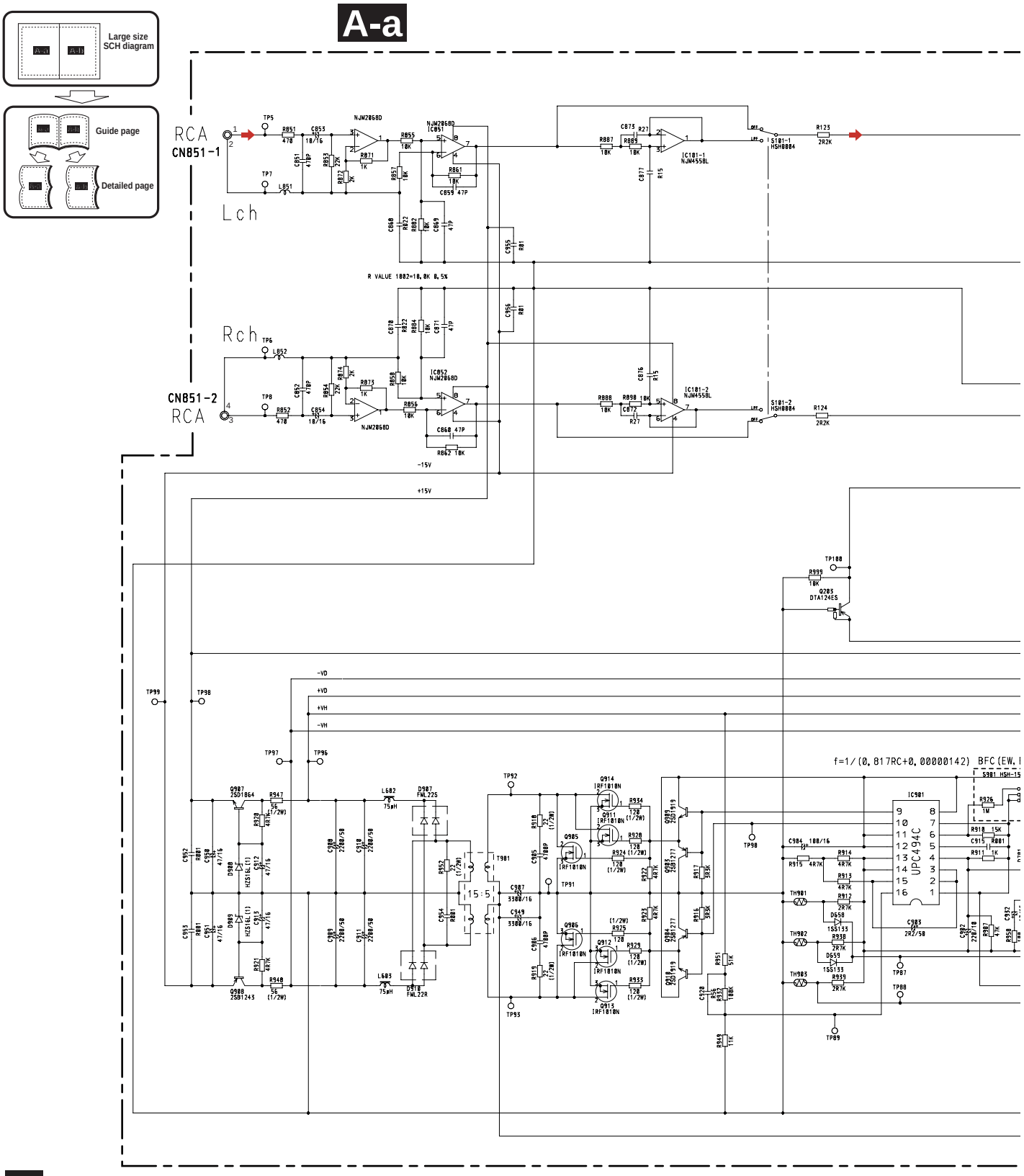
● EXTERIOR SECTION PARTS LIST

Mark No.	Description	Part No.
1	Screw	BBZ30P050FTC
2	Screw	BBZ30P060FTC
3	Screw	BBZ30P080FTC
4	Screw	BBZ30P120FTC
5	Screw	BSZ30P050FTC
6	Screw(M3x8)	HBA0011
7	Screw(M3)	HBA0028
8	Stud	HLA0021
9	Case	HNB0135
10	Panel	HNB0256
11	Panel	HNB0260
12	Holder	HNC0080
13	Clip	HNC0189
14	Spacer	HNM0006
15	Insulator	HNM0193
16	Screw	BMZ30P050FTC
17	Insulator	HNM0195
18	Heat Sink	HNR0279
19	Spacer	HNV0016
20	Fuse(25A)	HEK0025
21	Amp Unit(EW)	HWH0237
	Amp Unit(UC)	HWH0238
	Amp Unit(ES)	HWH0239
22	Pin Jack(CN851)	HKB0002
23	Terminal(CN853)	HKE0020
24	Terminal(CN854)	HKE0021
25	Terminal(CN855)	HKE0021
26	Terminal(CN850)	HKF0001
27	Buss Bar	HNC0043
28	Holder	HNC0082
29	Screw	PPZ30P100SAD
30	Light Pipe Unit	HXA0322
31	Screw	PPZ30P120FZK
32	Screw	BSZ30P050FZK
33	Holder	HNC0202
34	Insulator	HNM0193
35	FET(Q905,Q906,Q911-Q914)	IRF1010N

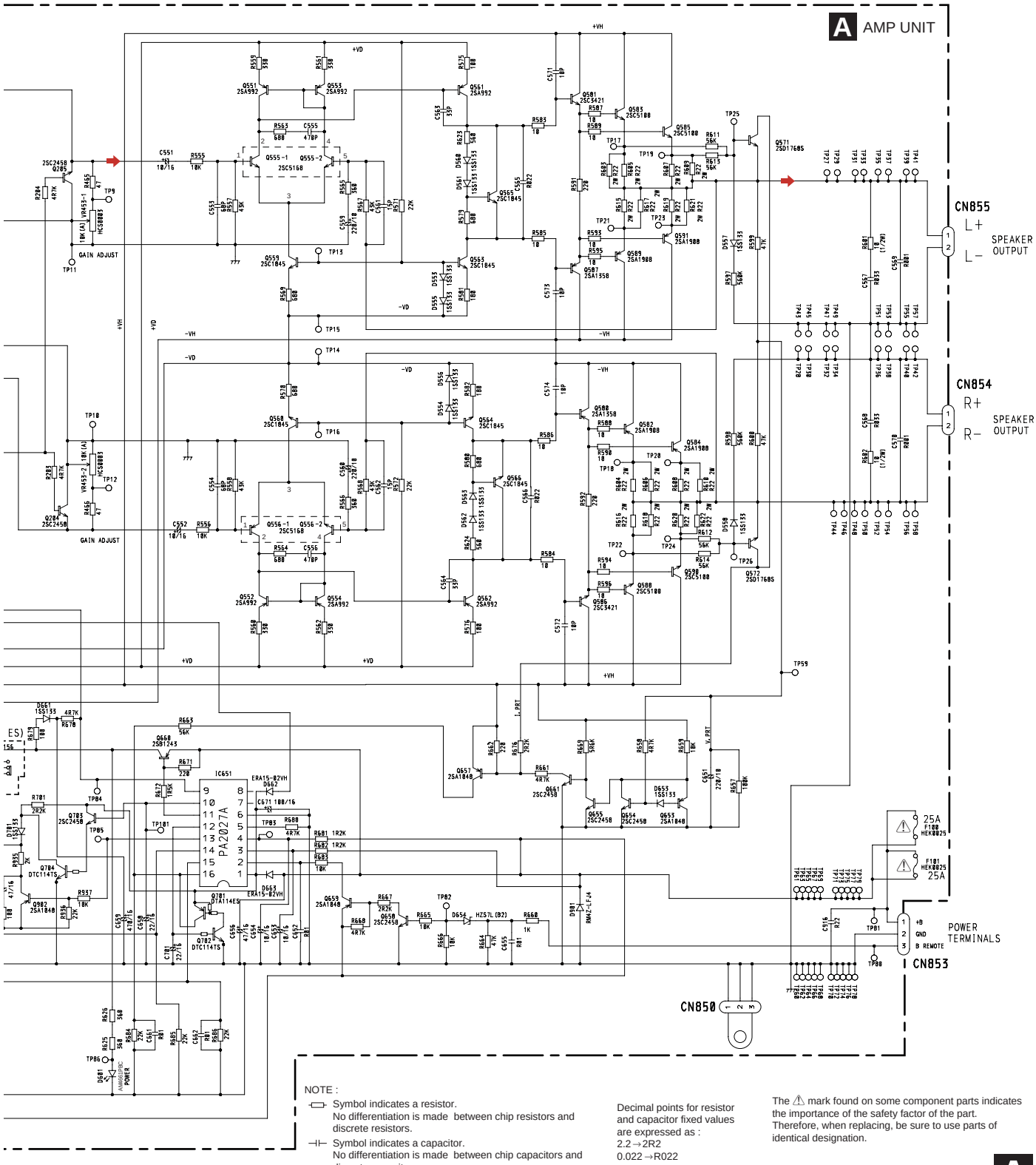
3. SCHEMATIC DIAGRAM

3.1 OVERALL CONNECTION DIAGRAM (GUIDE PAGE)

Note: When ordering service parts, be sure to refer to " EXPLODED VIEWS AND PARTS LIST" or "ELECTRICAL PARTS LIST".



A-b



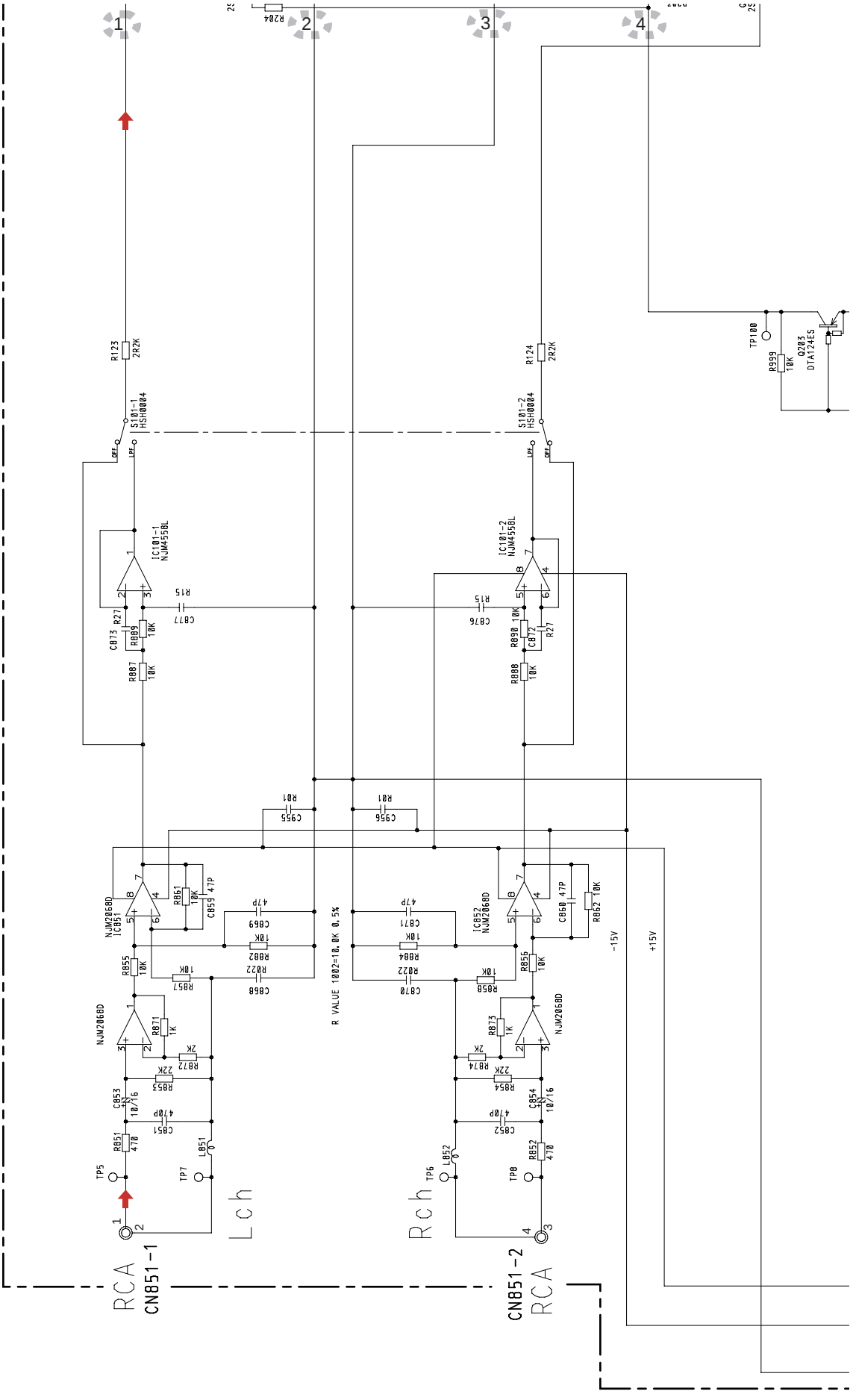
NOTE :

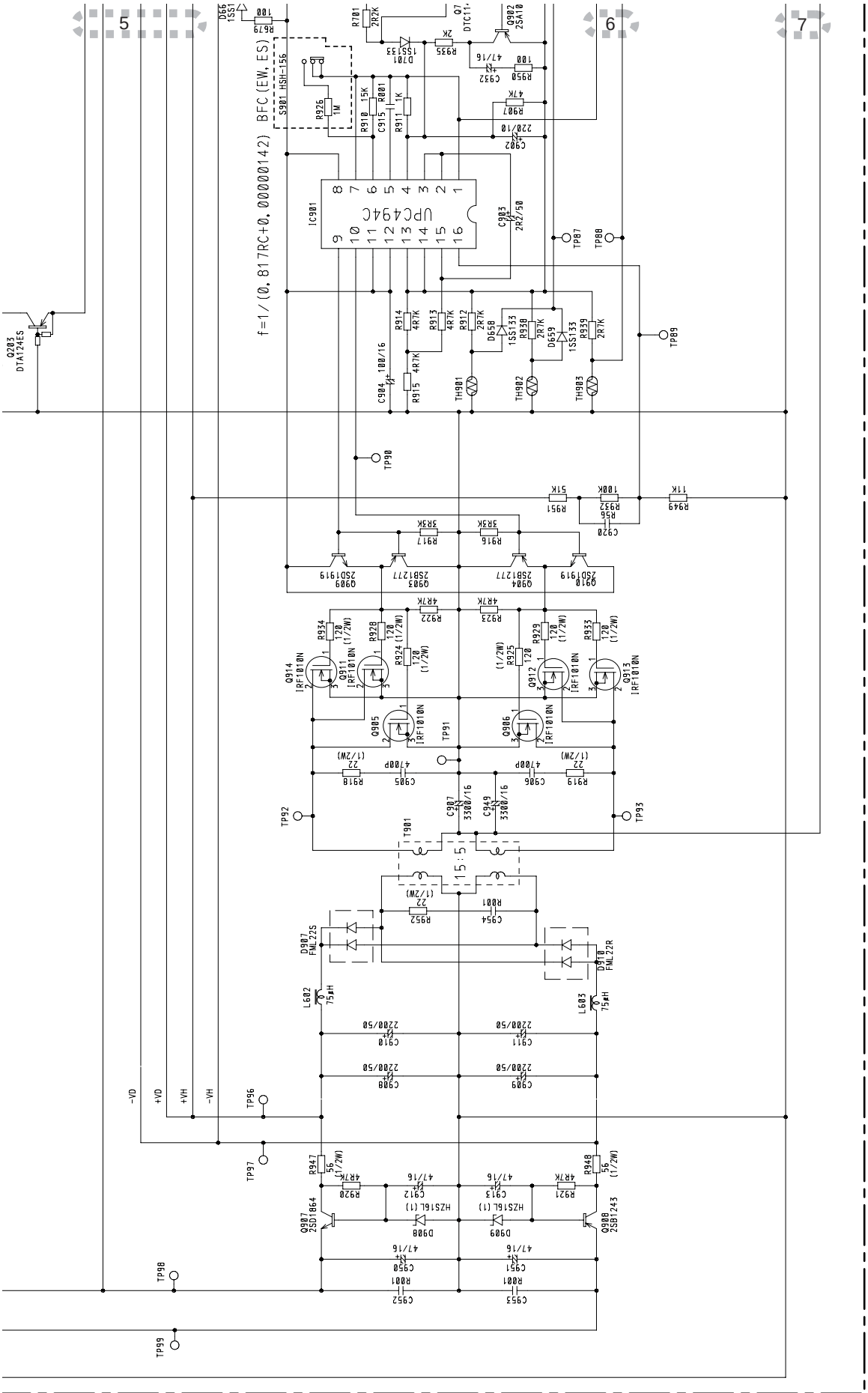
- Symbol indicates a resistor. No differentiation is made between chip resistors and discrete resistors.
- Symbol indicates a capacitor. No differentiation is made between chip capacitors and discrete capacitors.

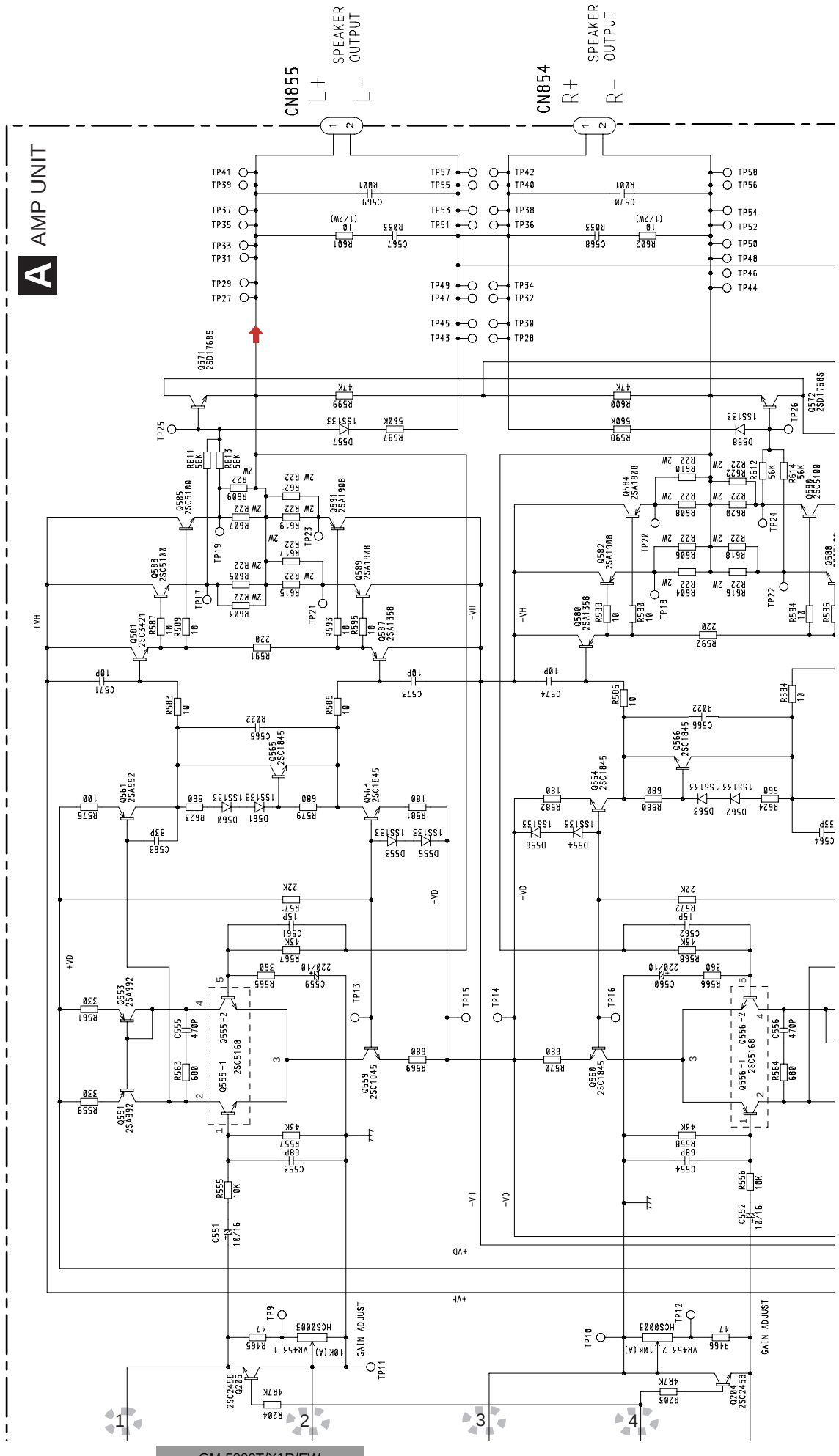
Decimal points for resistor and capacitor fixed values are expressed as :
2.2→2R2
0.022→R022

The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

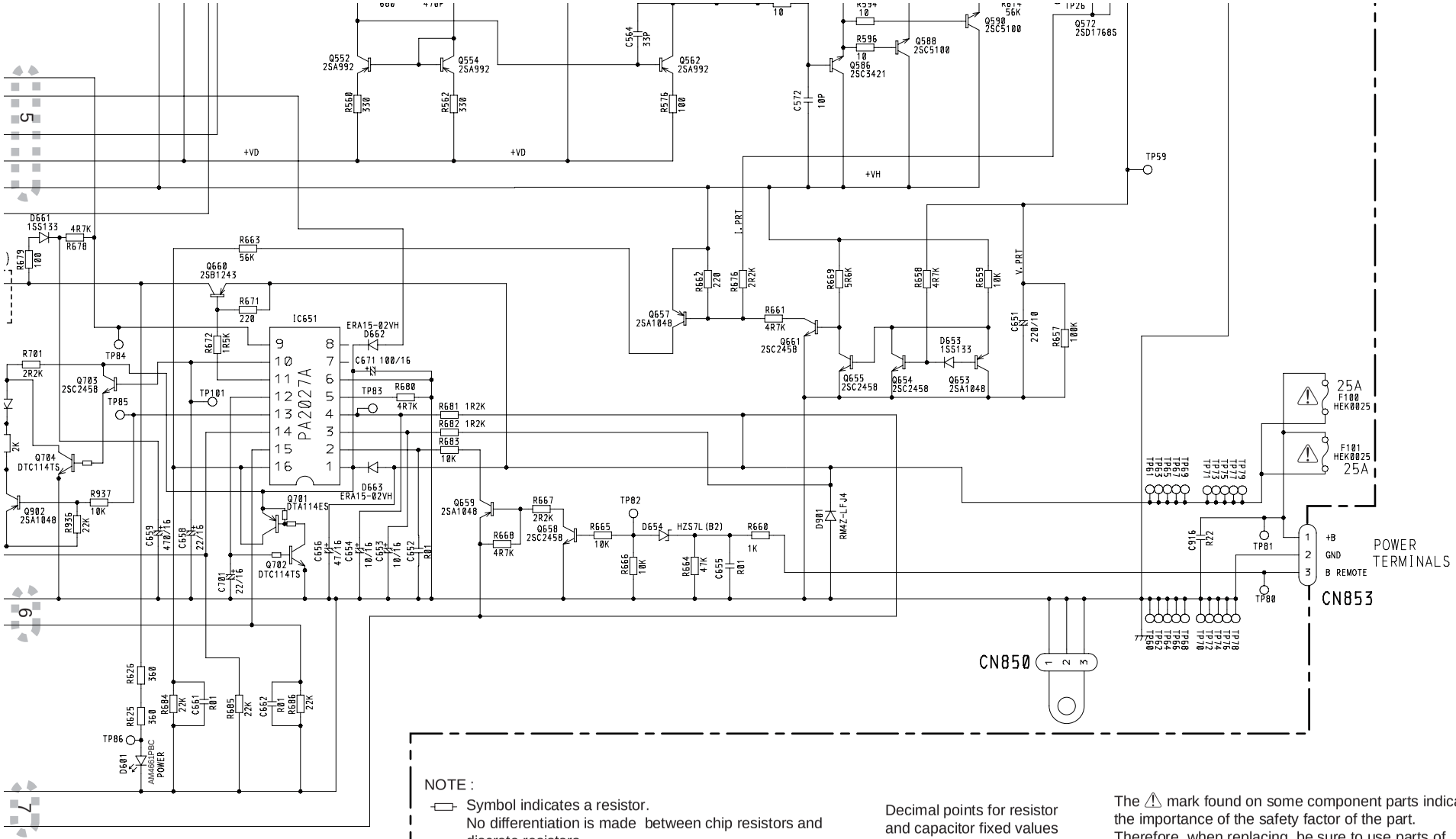
A


R123
2R2K
R124
2R2K
S101-1
HSH0004
S101-2
HSH0004
IC101-1
NJM4558L
IC101-2
NJM4558L
R27
R15
C877
C876
R889
10K
R890
10K
C873
C872
R887
10K
R888
10K
C955
R01
C956
R01
IC851
NJM2068D
IC852
NJM2068D
R851
10K
C855
47P
C868
47P
R862
10K
R855
10K
R856
10K
R857
10K
R858
10K
C869
47P
C871
47P
R882
10K
R884
10K
R022
C868
C870
R871
1K
R873
1K
2K
R872
R874
2K
22K
R853
R854
22K
C853
10/16
C854
10/16
C851
470P
C852
470P
R851
470
R852
470
L851
L852
TP5
TP7
TP6
TP8
TP100
R999
10K
Q203
DTA124ES
R VALUE 1002=10.0K 0.5%
-15V
+15V
Lch
Rch
RCA
CN851-1
CN851-2
RCA


f=1/(0.817RC+0.000000142) BFC(EW,ES)
IC901 UPC4944C
Q203 DTA124ES
TP87
TP88
TP89
TP90
TP91
TP92
TP93
TP96
TP97
TP98
TP99
-VD
+VD
+VH
-VH
A-b
A-a


CN855
L+
L−
SPEAKER OUTPUT
CN854
R+
R−
SPEAKER OUTPUT
A AMP UNIT
GAIN ADJUST
GAIN ADJUST

A-b



NOTE :

- Symbol indicates a resistor. No differentiation is made between chip resistors and discrete resistors.
- Symbol indicates a capacitor. No differentiation is made between chip capacitors and discrete capacitors.

Decimal points for resistor and capacitor fixed values are expressed as :
2.2 → 2R2
0.022 → R022

The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

A-a A-b

A-b

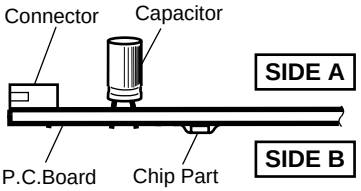
4. PCB CONNECTION DIAGRAM

4.1 AMP UNIT

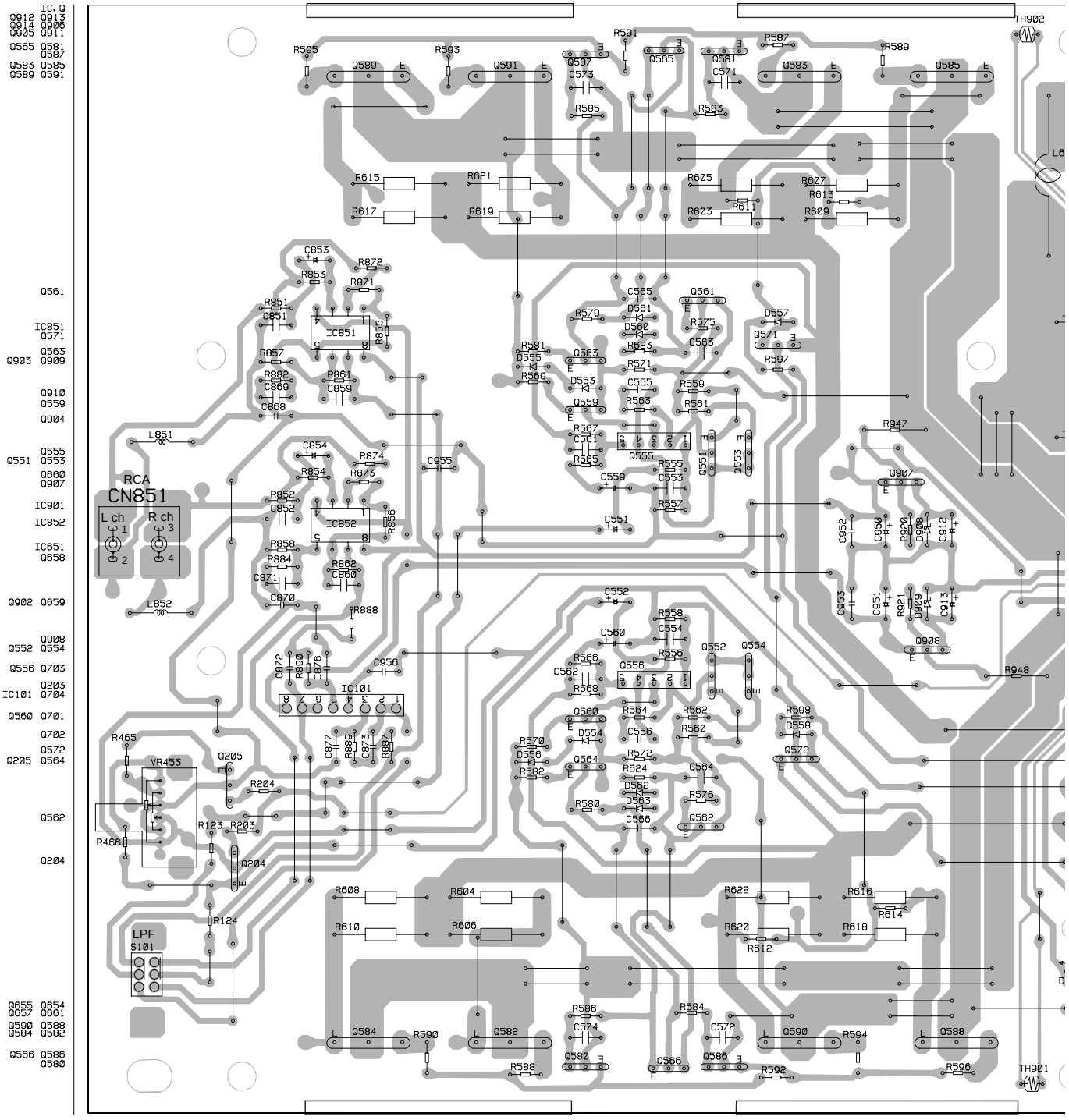
NOTE FOR PCB DIAGRAMS

1. The parts mounted on this PCB include all necessary parts for several destination.
   For further information for respective destinations, be sure to check with the schematic diagram.

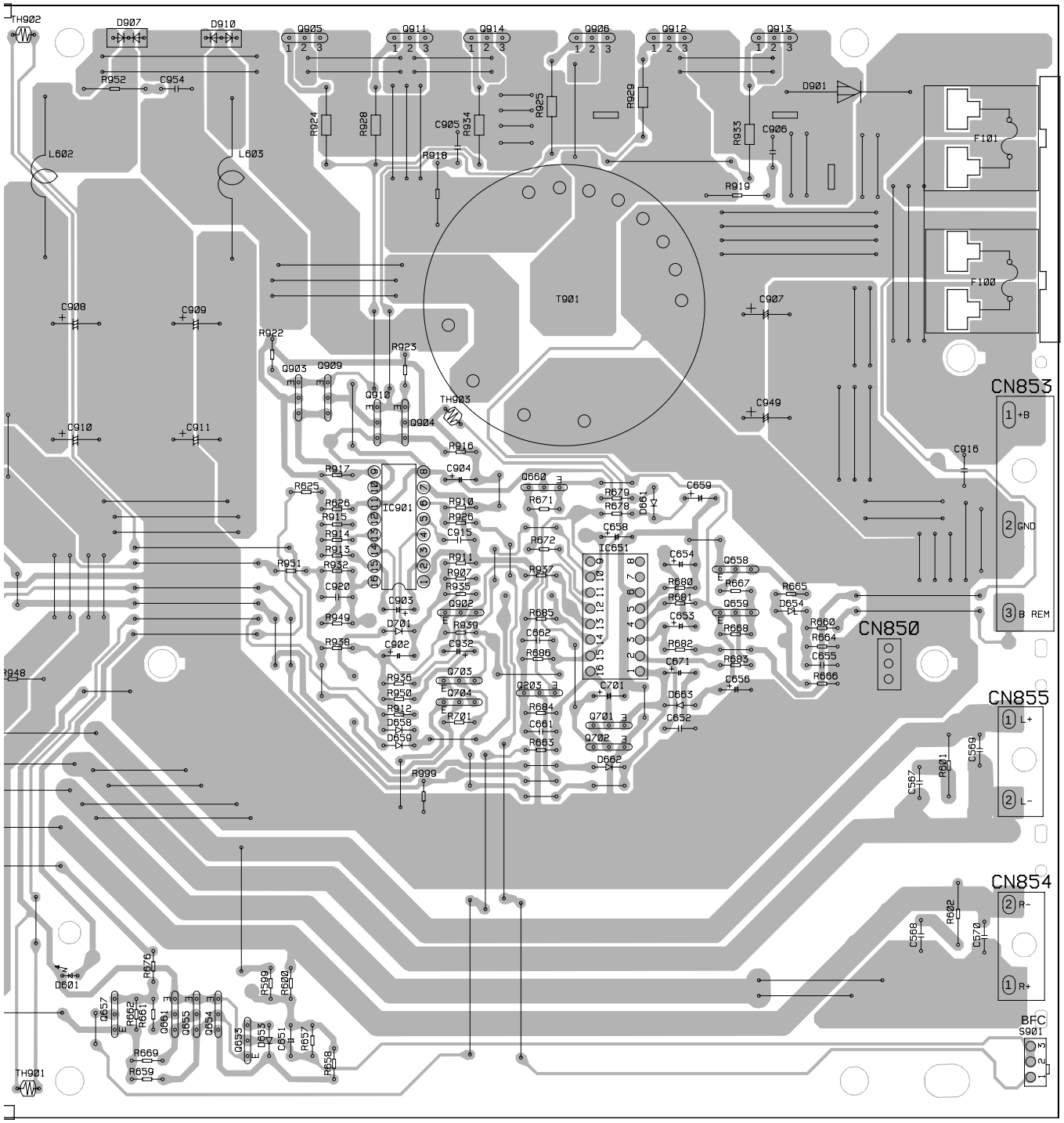
2. Viewpoint of PCB diagrams



A AMP UNIT



SIDE A


TH902
D907
D910
Q905
Q911
Q914
Q906
Q912
Q913
R952
C954
L602
L603
R924
R928
C905
R934
R925
R929
R918
D901
R933
C906
F101
R919
F100
T901
C907
C908
C909
R922
R923
Q903
Q909
Q910
TH903
Q904
C910
C911
R916
C916
R917
C904
Q660
C659
R625
R671
R679
R678
D661
R626
R910
IC901
R915
R926
C658
R914
C915
R672
IC651
C654
R913
R911
R937
Q658
R951
R932
R907
R680
R667
R665
C920
R935
R681
D654
C903
Q902
Q659
C653
R949
D701
R939
R669
R660
R685
R664
R938
C902
C932
R682
C655
R662
R683
C671
R936
Q703
C656
R948
R950
Q704
Q205
C701
R666
R912
R684
D663
D658
R701
Q701
C652
C661
D659
Q702
R663
D662
R999
CN853
+B
GND
B REM
CN850
CN855
L+
L-
C599
R601
C567
CN854
R-
R+
R602
C598
C570
BFC
S901
TH901
D601
R876
R509
R600
Q657
R662
R661
Q661
Q655
Q654
Q653
D653
C651
R657
R658
R669
R659

A

A

A AMP UNIT

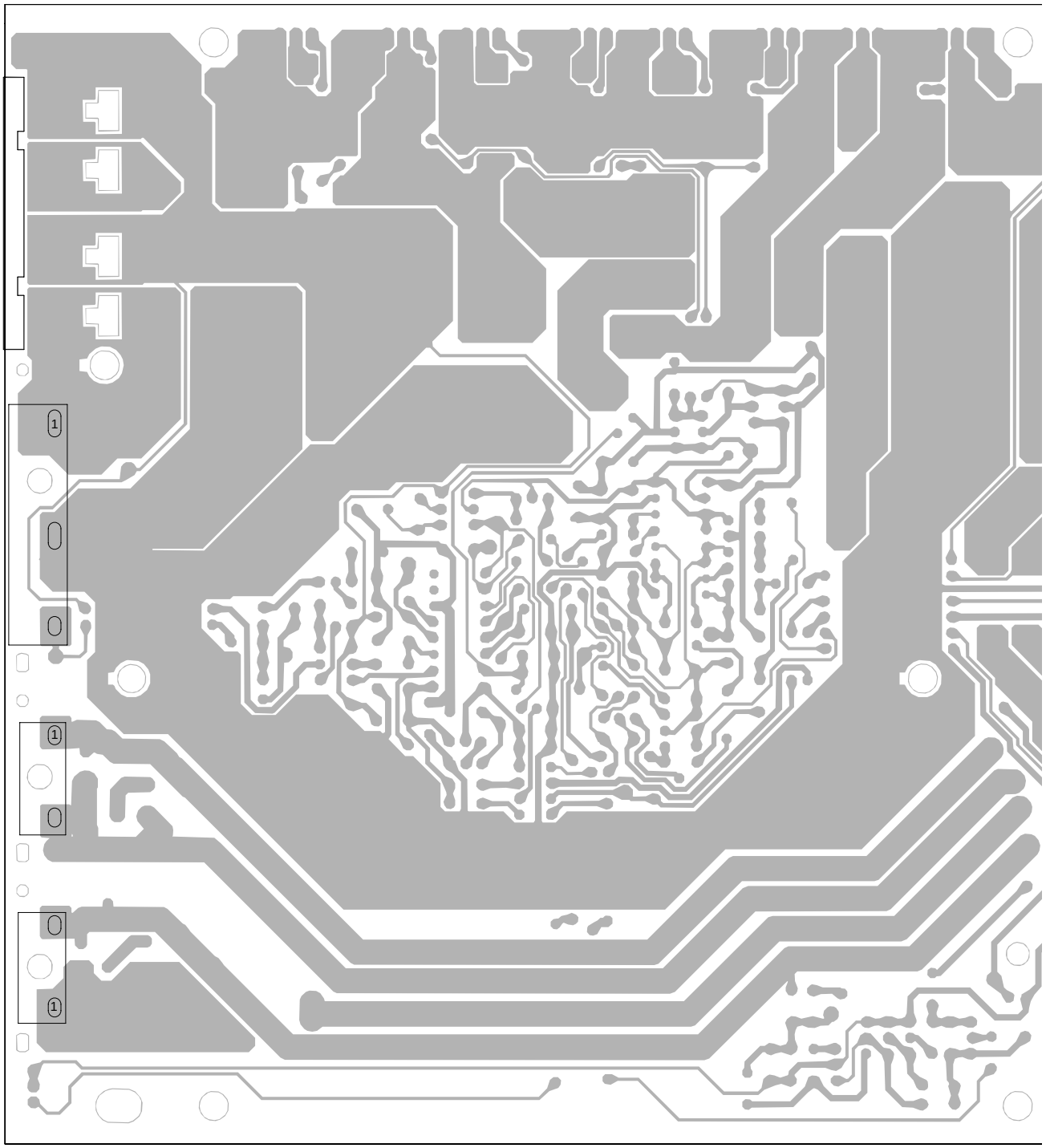
B

C

D

E

F



A

B

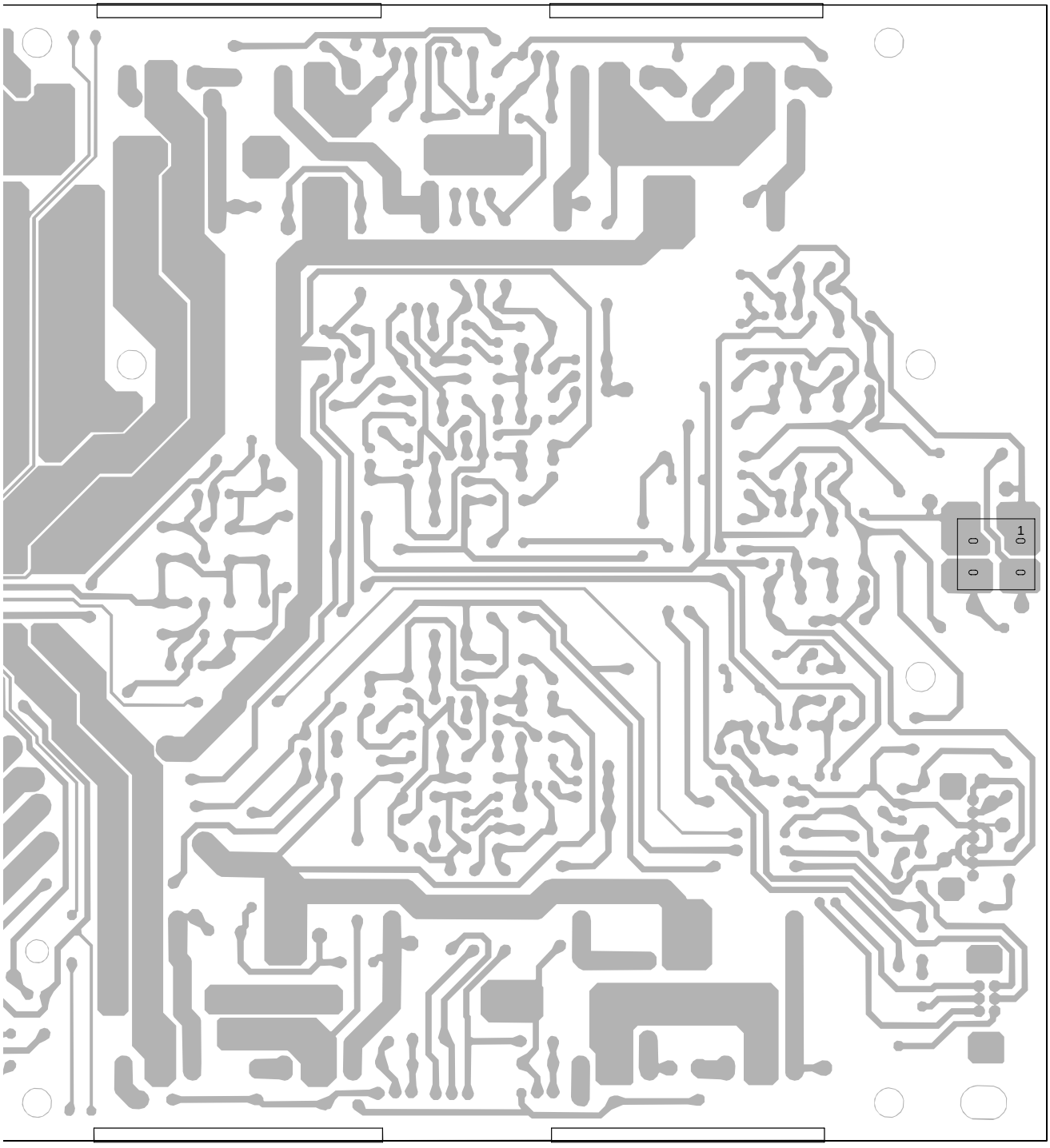
C

D

E

F

SIDE B



5. ELECTRICAL PARTS LIST

NOTE:

● Parts whose parts numbers are omitted are subject to being not supplied.

● The part numbers shown below indicate chip components.

Chip Resistor

RS1/○S○○○J,RS1/○○S○○○J

Chip Capacitor (except for CQS.....)

CKS....., CCS....., CSZS.....

A Unit Number : HWH0237(EW)
Unit Number : HWH0238(UC)
Unit Number : HWH0239(ES)
Unit Name : Amp Unit

MISCELLANEOUS

=====Circuit Symbol and No.		===Part Name	Part No.
IC	101	IC	NJM4558L
IC	651	IC	PA2027A
IC	851	IC	NJM2068D
IC	852	IC	NJM2068D
IC	901	IC	UPC494C
Q	203	Transistor	DTA124ES
Q	204	Transistor	2SC2458
Q	205	Transistor	2SC2458
Q	551	Transistor	2SA992
Q	552	Transistor	2SA992
Q	553	Transistor	2SA992
Q	554	Transistor	2SA992
Q	555	Transistor	2SC5168
Q	556	Transistor	2SC5168
Q	559	Transistor	2SC1845
Q	560	Transistor	2SC1845
Q	561	Transistor	2SA992
Q	562	Transistor	2SA992
Q	563	Transistor	2SC1845
Q	564	Transistor	2SC1845
Q	565	Transistor	2SC1845
Q	566	Transistor	2SC1845
Q	571	Transistor	2SD1768S
Q	572	Transistor	2SD1768S
Q	580	Transistor	2SA1358
Q	581	Transistor	2SC3421
Q	582	Transistor	2SA1908
Q	583	Transistor	2SC5100
Q	584	Transistor	2SA1908
Q	585	Transistor	2SC5100
Q	586	Transistor	2SC3421
Q	587	Transistor	2SA1358
Q	588	Transistor	2SC5100
Q	589	Transistor	2SA1908
Q	590	Transistor	2SC5100
Q	591	Transistor	2SA1908
Q	653	Transistor	2SA1048
Q	654	Transistor	2SC2458
Q	655	Transistor	2SC2458
Q	657	Transistor	2SA1048
Q	658	Transistor	2SC2458
Q	659	Transistor	2SA1048
Q	660	Transistor	2SB1243
Q	661	Transistor	2SC2458
Q	701	Transistor	DTA114ES

=====Circuit Symbol and No.		===Part Name	Part No.
Q	702	Transistor	DTC114TS
Q	703	Transistor	2SC2458
Q	704	Transistor	DTC114TS
Q	902	Transistor	2SA1048
Q	903	Transistor	2SB1277
Q	904	Transistor	2SB1277
Q	905	FET	IRF1010N
Q	906	FET	IRF1010N
Q	907	Transistor	2SD1864
Q	908	Transistor	2SB1243
Q	909	Transistor	2SD1919
Q	910	Transistor	2SD1919
Q	911	FET	IRF1010N
Q	912	FET	IRF1010N
Q	913	FET	IRF1010N
Q	914	FET	IRF1010N
D	553	Diode	1SS133
D	554	Diode	1SS133
D	555	Diode	1SS133
D	556	Diode	1SS133
D	557	Diode	1SS133
D	558	Diode	1SS133
D	560	Diode	1SS133
D	561	Diode	1SS133
D	562	Diode	1SS133
D	563	Diode	1SS133
D	601	LED	AM4661PBC
D	653	Diode	1SS133
D	654	Diode	HZS7L(B2)
D	658	Diode	1SS133
D	659	Diode	1SS133
D	661	Diode	1SS133
D	662	Diode	ERA15-02VH
D	663	Diode	ERA15-02VH
D	701	Diode	1SS133
D	901	Diode	RM4Z-LFJ4
D	907	Diode	FML22S
D	908	Diode	HZS16L(1)
D	909	Diode	HZS16L(1)
D	910	Diode	FML22R
L	602	Choke Coil 75µH	HTH0021
L	603	Choke Coil 75µH	HTH0021
L	851	Ferri-Inductor	CTF1007
L	852	Ferri-Inductor	CTF1007
T	901	Transformer	HTT0035
TH	901	Thermistor	HCX0002
TH	902	Thermistor	HCX0002
TH	903	Thermistor	HCX0001
S	101	Switch(LPF)	HSH0004
S	901	Switch(BFC)(EW,ES)	HSH-156
VR	453	Volume	HCS0003
F	100	Fuse (25A)	HEK0025
F	101	Fuse (25A)	HEK0025

=====Circuit Symbol and No.	===Part Name	Part No.

RESISTORS

R	123		RD1/4PU222J
R	124		RD1/4PU222J
R	203		RD1/4PU472J
R	204		RD1/4PU472J
R	465		RD1/4PU470J
R	466		RD1/4PU470J
R	555		RD1/4PU103J
R	556		RD1/4PU103J
R	557		RD1/4PU433J
R	558		RD1/4PU433J
R	559		RD1/4PU331J
R	560		RD1/4PU331J
R	561		RD1/4PU331J
R	562		RD1/4PU331J
R	563		RD1/4PU681J
R	564		RD1/4PU681J
R	565		RD1/4PU361J
R	566		RD1/4PU361J
R	567		RD1/4PU433J
R	568		RD1/4PU433J
R	569		RD1/4PU681J
R	570		RD1/4PU681J
R	571		RD1/4PU223J
R	572		RD1/4PU223J
R	575		RD1/4PU101J
R	576		RD1/4PU101J
R	579		RD1/4PU681J
R	580		RD1/4PU681J
R	581		RD1/4PU181J
R	582		RD1/4PU181J
R	583		RD1/4PU100J
R	584		RD1/4PU100J
R	585		RD1/4PU100J
R	586		RD1/4PU100J
R	587		RD1/4PU100J
R	588		RD1/4PU100J
R	589		RD1/4PU100J
R	590		RD1/4PU100J
R	591		RD1/4PU221J
R	592		RD1/4PU221J
R	593		RD1/4PU100J
R	594		RD1/4PU100J
R	595		RD1/4PU100J
R	596		RD1/4PU100J
R	597		RD1/4PU564J
R	598		RD1/4PU564J
R	599		RD1/4PU473J
R	600		RD1/4PU473J
R	601		RS1/2PMF100J
R	602		RS1/2PMF100J
R	603	0.22Ω	HCN0001
R	604	0.22Ω	HCN0001
R	605	0.22Ω	HCN0001
R	606	0.22Ω	HCN0001
R	607	0.22Ω	HCN0001
R	608	0.22Ω	HCN0001
R	609	0.22Ω	HCN0001
R	610	0.22Ω	HCN0001
R	611		RD1/4PU563J
R	612		RD1/4PU563J
R	613		RD1/4PU563J
R	614		RD1/4PU563J
R	615	0.22Ω	HCN0001
R	616	0.22Ω	HCN0001
R	617	0.22Ω	HCN0001
R	618	0.22Ω	HCN0001
R	619	0.22Ω	HCN0001
R	620	0.22Ω	HCN0001
R	621	0.22Ω	HCN0001
R	622	0.22Ω	HCN0001
R	623		RD1/4PU561J
R	624		RD1/4PU561J
R	625		RD1/4PU361J
R	626		RD1/4PU361J
R	657		RD1/4PU104J
R	658		RD1/4PU472J
R	659		RD1/4PU103J
R	660		RD1/4PU102J
R	661		RD1/4PU472J
R	662		RD1/4PU221J
R	663		RD1/4PU563J
R	664		RD1/4PU473J
R	665		RD1/4PU103J
R	666		RD1/4PU103J
R	667		RD1/4PU222J
R	668		RD1/4PU472J
R	669		RD1/4PU562J
R	671		RD1/4PU221J
R	672		RD1/4PU152J
R	676		RD1/4PU222J
R	678		RD1/4PU472J
R	679		RD1/4PU101J
R	680		RD1/4PU472J
R	681		RD1/4PU122J
R	682		RD1/4PU122J
R	683		RD1/4PU103J
R	684		RD1/4PU223J
R	685		RD1/4PU223J
R	686		RD1/4PU223J
R	701		RD1/4PU222J
R	851		RD1/4PU471J
R	852		RD1/4PU471J
R	853		RD1/4PU223J
R	854		RD1/4PU223J
R	855		RN1/4PC1002D
R	856		RN1/4PC1002D
R	857		RN1/4PC1002D
R	858		RN1/4PC1002D
R	861		RN1/4PC1002D
R	862		RN1/4PC1002D
R	871		RD1/4PU102J
R	872		RD1/4PU202J
R	873		RD1/4PU102J
R	874		RD1/4PU202J
R	882		RN1/4PC1002D
R	884		RN1/4PC1002D
R	887		RD1/4PU103J
R	888		RD1/4PU103J
R	889		RD1/4PU103J
R	890		RD1/4PU103J
R	907		RD1/4PU473J
R	910		RD1/4PU153J
R	911		RD1/4PU102J
R	912		RD1/4PU272J
R	913		RD1/4PU472J
R	914		RD1/4PU472J
R	915		RD1/4PU472J
R	916		RD1/4PU332J
R	917		RD1/4PU332J
R	918		RS1/2PMF220J

=====Circuit Symbol and No.		===Part Name	Part No.
R	919		RS1/2PMF220J
R	920		RD1/4PU472J
R	921		RD1/4PU472J
R	922		RD1/4PU472J
R	923		RD1/4PU472J
R	924		RS1/2PMF121J
R	925		RS1/2PMF121J
R	926	(EW,ES)	RD1/4PU105J
R	928		RS1/2PMF121J
R	929		RS1/2PMF121J
R	932		RD1/4PU104J
R	933		RS1/2PMF121J
R	934		RS1/2PMF121J
R	935		RD1/4PU202J
R	936		RD1/4PU223J
R	937		RD1/4PU103J
R	938		RD1/4PU272J
R	939		RD1/4PU272J
R	947		RS1/2PMF560J
R	948		RS1/2PMF560J
R	949		RD1/4PU113J
R	950		RD1/4PU101J
R	951		RD1/4PU513J
R	952		RS1/2PMF220J
R	999		RD1/4PU103J

CAPACITORS

C	551		CEAT100M16
C	552		CEAT100M16
C	553		CCPUSL680J50
C	554		CCPUSL680J50
C	555		CQMA471J50
C	556		CQMA471J50
C	559		CEAT221M10
C	560		CEAT221M10
C	561		CCPUCH150J50
C	562		CCPUCH150J50
C	563		CCPUSL330J50
C	564		CCPUSL330J50
C	565		CFTNA223J50
C	566		CFTNA223J50
C	567		CFTNA333J50
C	568		CFTNA333J50
C	569		CQMA102J50
C	570		CQMA102J50
C	571		CCPUCH100J50
C	572		CCPUCH100J50
C	573		CCPUCH100J50
C	574		CCPUCH100J50
C	651	220µF/10V	HCH0012
C	652		CFTNA103J50
C	653		CEAT100M16

=====Circuit Symbol and No.		===Part Name	Part No.
C	654		CEAT100M16
C	655		CFTNA103J50
C	656		CEAT470M16
C	658		CEAT220M16
C	659		CEAT471M16
C	661		CFTNA103J50
C	662		CFTNA103J50
C	671		CEAT101M16
C	701		CEAT220M16
C	851		CKPUYB471K50
C	852		CKPUYB471K50
C	853		CEAT100M16
C	854		CEAT100M16
C	859		CCPUSL470J50
C	860		CCPUSL470J50
C	868		CFTNA223J50
C	869		CCPUSL470J50
C	870		CFTNA223J50
C	871		CCPUSL470J50
C	872		CFTNA274J50
C	873		CFTNA274J50
C	876		CFTNA154J50
C	877		CFTNA154J50
C	902		CEAT221M10
C	903		CEAT2R2M50
C	904		CEAT101M16
C	905		CQMA472J50
C	906		CQMA472J50
C	907	3300µF/16V	HCH0005
C	908	2200µF/50V	HCH0007
C	909	2200µF/50V	HCH0007
C	910	2200µF/50V	HCH0007
C	911	2200µF/50V	HCH0007
C	912		CEAT470M16
C	913		CEAT470M16
C	915		CQMA102J50
C	916		CFTNA224J50
C	920		CFTNA564J50
C	932		CEAT470M16
C	949	3300µF/16V	HCH0005
C	950		CEAT470M16
C	951		CEAT470M16
C	952		CQMA102J50
C	953		CQMA102J50
C	954		CQMA102J50
C	955		CFTNA103J50
C	956		CFTNA103J50

6. ADJUSTMENT

There is no information to be shown in this chapter.

7. GENERAL INFORMATION

7.1 DIAGNOSIS

7.1.1 DISASSEMBLY

● **Removing the Case (Fig.1)**

1. Remove the three screws.
2. Remove the eight screws and then remove the Case.

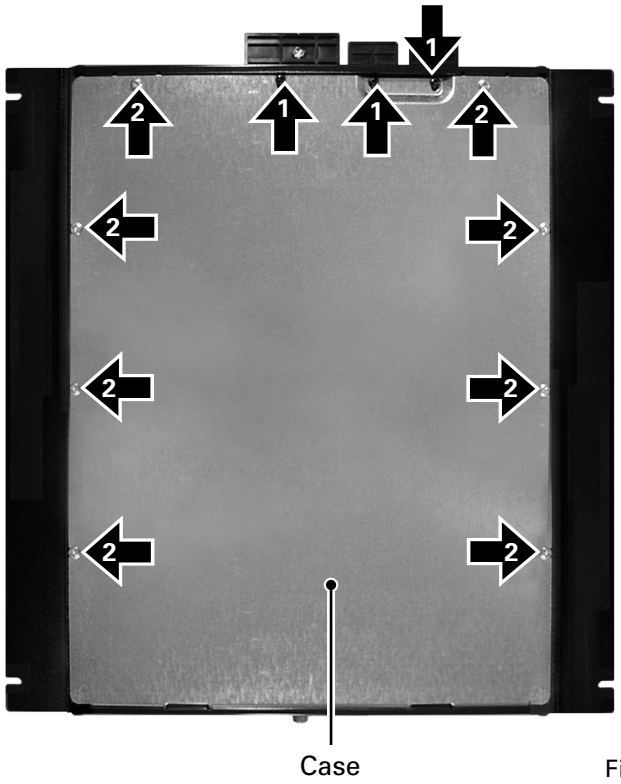


Fig.1

● **Removing the Amp Unit (Fig.2)**

1. Remove the six screws and then remove the Panel.
2. Remove the screw.
3. Remove the six screws and then remove the Panel.
4. Remove the three screws.
5. Remove the fourteen screws.
6. Remove the twelve screws and then remove the Amp Unit.

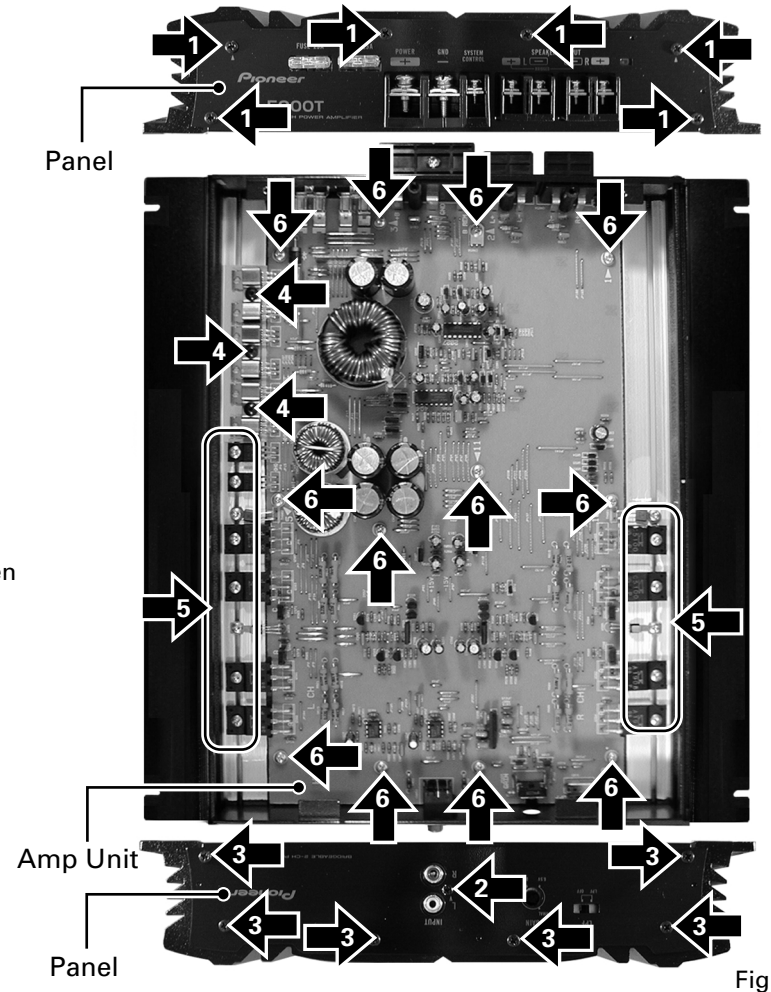
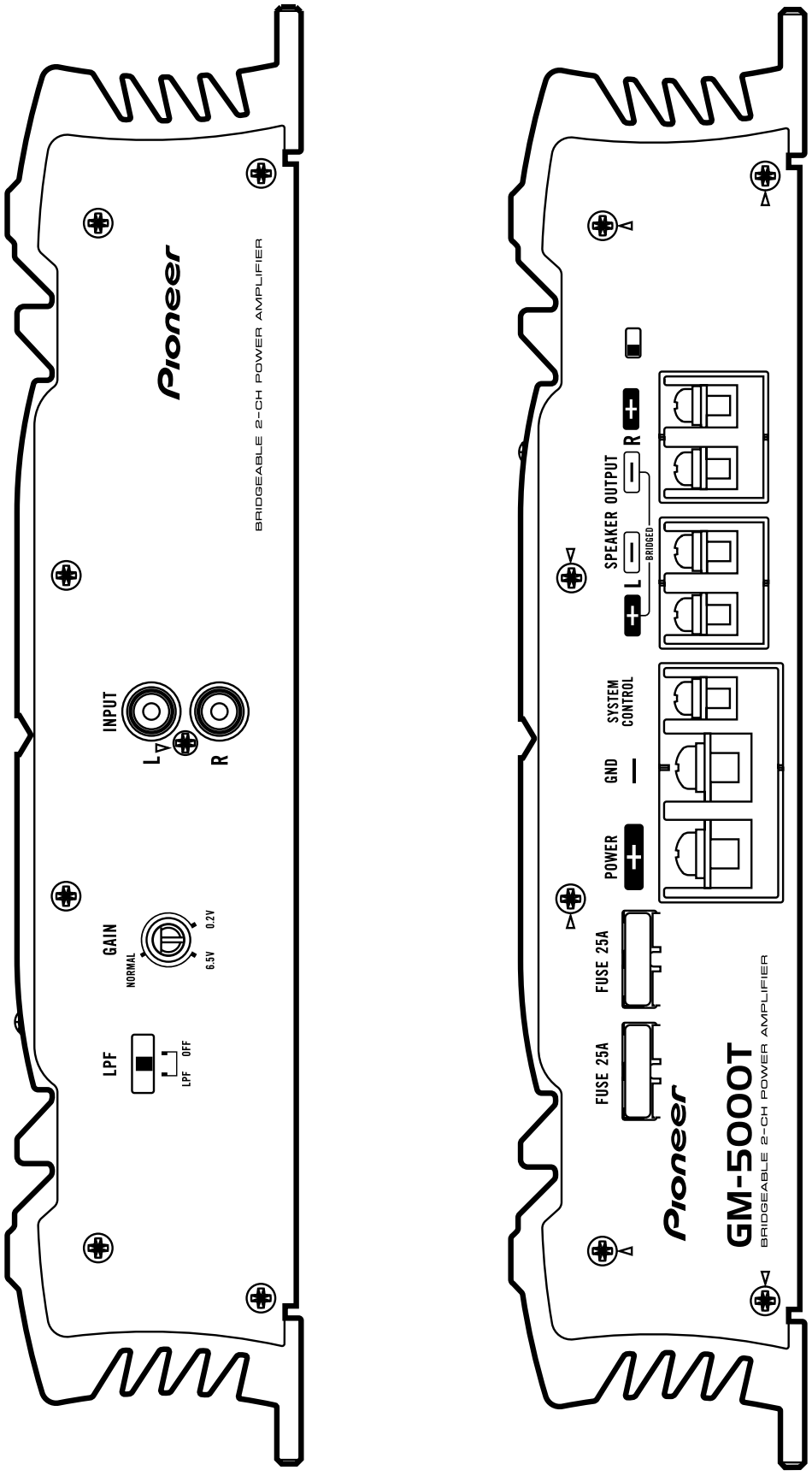


Fig.2

7.1.2 CONNECTOR FUNCTION DESCRIPTION



Gain Control

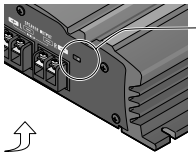
If the sound level is too low, even when the volume of the car stereo used along with this power amplifier is turned up, turn gain control on the front of the power amplifier clockwise. If the sound distorts when the volume is turned up, turn the gain control counter-clockwise.

- When using with an RCA equipped car stereo (standard output of 500 mV), set to the NORMAL position. When using with an RCA equipped Pioneer car stereo with max. output of 4 V or more, adjust level to match the car stereo output level.

Power Indicator

The power indicator lights when the power is switched on.

EW, ES models



BFC (Beat Frequency Control) Switch

If you hear a beat while listening to an MW/LW broadcast with your car stereo, change the BFC switch using a small standard tip screwdriver.

LPF (Low-Pass Filter) Select Switch

Set the LPF select switch as follows according to the type of speaker that is connected to the speaker output connector and the car stereo system:

LPF Select Switch	Audio frequency range to be output	Speaker Type	Remarks
LPF (left)	Very Low Frequency range	Subwoofer	Connect a subwoofer.
OFF (right)	Full range	Full range	